

**Notice of Allowability**

Application No.

10/669,689

Examiner

Maryam Monshipouri

Applicant(s)

YAN ET AL.

Art Unit

1652

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_.
2. ☒ The allowed claim(s) is/are 24,27-31 and 36-39.
3. ☒ The drawings filed on 25 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).  
\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                   |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                               | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>4/15/2004</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date ____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material         | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                          |
|  | 9. <input type="checkbox"/> Other ____.   |

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-2 and 20-21, drawn to isolated kinases, classified in class 435, subclass 194.
- II. Claims 3 and 12, drawn to antibodies which specifically bind said kinases and methods of detecting said kinases using antibodies, classified in class 435, subclass 7.1.
- III. Claims 4-6, 8-11 and 22-23, drawn to isolated DNA sequences encoding said kinases, gene chips comprising said sequences, methods of producing said kinases, classified in class 435, subclass 194.
- IV. Claim 7, drawn to a transgenic non-human animal comprising said DNA sequences , classified in class 800, subclass 8.
- V. Claim 13, drawn to methods of detecting the presence of nucleic acids in a sample comprising contacting the sample with DNA sequences encoding said kinases (probes) that hybridize said nucleic acids, classified in class 435, subclass 6.
- VI. Claims 14-16 and 19, drawn to methods of identifying modulators or agents that bind said kinases, classified in class 435, subclass 15.
- VII. Claim 17, drawn to a pharmaceutical composition comprising modulators or agents that bind said kinases, classified in class 514, subclass 789.
- VIII. Claim 18, drawn to methods of treatment comprising administering modulators of said kinases, classified in class 424, subclass 94.1.

The inventions are distinct, each from the other because of the following reasons:

The peptides of Group I, the antibodies of Group II, the DNA of Group III, the transgenic animal of Group IV, the modulator composition of Group VII are each patentably distinct from the other. This is because each product has an unrelated chemical structure and function.

The peptides of Group I, the antibodies of Group II, the transgenic animal of Group IV and the composition of Group VII are each patentably distinct from the hybridization assay method of Group V because said products are neither made nor used by said method.

Inventions III and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case The DNA of Group III may be used for recombinant expression of said kinases which is a totally different method than the of Group IV.

The DNA of Group III is unrelated to the method of Group VIII because said product is neither made nor used by said method.

Inventions I and VI or VIII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the peptides of

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Group I may be used for antibody preparation which is a totally different method than those of Groups VI or VIII.

The peptides of Group I are unrelated to the method of Group V because said product is neither made nor used by said method.

The antibodies of Group III, the transgenic animal of Group IV, and the composition of Group VII are each patentably distinct from any of the methods of Group V, VI and VIII because said products are neither made nor used by any of said methods.

The methods of Group V, VI and VIII are each patentably distinct from the other because each method has different steps and different end-points.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Applicant was advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant was reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

During a telephone conversation with Mr. Justin Karjala on 4/15/2004 a provisional election was made without traverse to prosecute the invention of Group III (claims 4-6, 8-11 and 22-23). Affirmation of this election was made by applicant in this

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preliminary amendment. Claims 1-3, 7, 12-21 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

An **Examiner's Amendment** to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this Examiner's Amendment was given in a telephone interview with , Mr. Justin D. Karjala on 4/20/2004 .

#### **Examiner's Amendment to the Claims**

Cancel claims 25-26, 32-35, 40-41.

In claim 36, after "claims" delete " 24-35", and substitute therefor --- 24 and 27-31. ---.

#### **Examiner's Amendments to the Specification**

In page 1, underneath the title insert --- This application is a Division of U.S. application No. 10/153,921 filed 5/24/2002 now U.S. Patent No. 6,653,116 issued 11/25/2003, which is Divisional of U.S. application No. 09/734,030 filed 12/12/2000 now U.S. patent No. 6,461,846, issued 10/8/2002, which claims priority to Provisional application No. 60/207281 filed 5/30/2000. ---

In page 6, line 9, delete "FIGURE 1" and substitute therefor --- Figures 1A-1B---.

In page 6, line 15, delete "FIGURE 2" and substitute therefor --- Figures 2A-2P---.

In page 6, line 19, delete "FIGURE 3" and substitute therefor --- Figures 3A-3F---.

The following is an **Examiner's Statement of Reasons for Allowance**:

Claims 24, 27-31 and 36-39 are drawn to isolated nucleic acid molecules encoding a human calcium/calmodulin dependent kinase comprising specific DNA sequences, their fusion products, vectors and host cells comprising all said products and methods of expressing said products.

Claimed DNA molecules are free of prior art. Further, the prior art does not teach or suggest preparing such specifically claimed DNA molecules. Hence, said molecules are also non-obvious. Since claimed molecules are both novel and non-obvious, their fusion products, vectors and host cells comprising all said products and methods of expressing said products are also novel and on-obvious.

**Claims 24, 27-31 and 36-39 are allowed.**

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

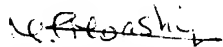
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maryam Monshipouri whose telephone number is (571) 272-0932. The examiner can normally be reached on 7:00 a.m to 4:30 p.m. except for alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnanthapu Achutamurthy can be reached on (571) 272-0928. The fax

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phone number for the organization where this application or proceeding is assigned is  
703-872-9306.

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you have questions on access to the Private PAIR system, contact the Electronic  
Business Center (EBC) at 866-217-9197 (toll-free).



Maryam Monshipouri Ph.D.

Primary Examiner

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